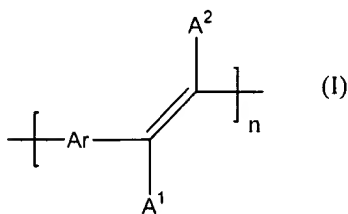


**AMENDMENTS TO THE CLAIMS**

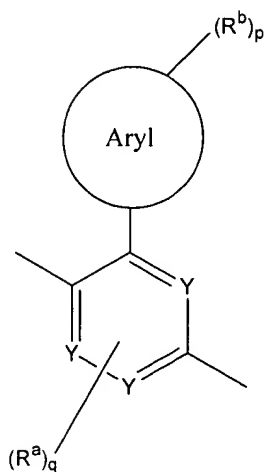
1-5. (cancelled)

6. (previously presented) A process for the preparation of polymers of the formula (I)



in which Ar is Ar<sup>1</sup> or Ar<sup>2</sup> and

Ar<sup>1</sup> is an aromatic ring system having 4 to 20 carbon atoms, which is optionally monosubstituted or polysubstituted by C<sub>1</sub>-C<sub>20</sub>-alkyl, C<sub>1</sub>-C<sub>20</sub>-alkoxy, C<sub>3</sub>-C<sub>20</sub>-branched alkyl, phenyl or benzyl radicals and which further optionally contains up to 4 heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen in the aromatic ring system, is a radical of the formula



in which

Y are identical or different and are CH or N;

Aryl is an aryl group having 4 to 14 carbon atoms;

$R^a$  and  $R^b$  are identical or different and are a straight-chain or branched or cyclic alkyl or alkoxy group having 1 to 20 carbon atoms, in which one or more non-adjacent  $CH_2$  groups is optionally replaced by -O-, -S-, -CO-, -COO-, -O-CO-, -NR<sup>1</sup>-, -(NR<sup>2</sup>R<sup>3</sup>)<sup>+</sup>-A<sup>-</sup> or -CONR<sup>4</sup>- and in which one or more H atoms is optionally replaced by F, or are CN, F, Cl or an aryl group having 4 to 14 carbon atoms, which is optionally substituted by one or more non-aromatic radicals  $R^a$ ;

$R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are identical or different and are aliphatic or aromatic hydrocarbon radicals having 1 to 20 carbon atoms or are alternatively H;

A<sup>-</sup> is a singly charged anion or an equivalent thereof;

q is 0, 1 or 2;

p is 1, 2, 3, 4 or 5;

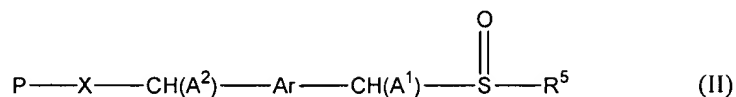
A<sup>1</sup> and A<sup>2</sup> are identical or different and are hydrogen or a C<sub>1</sub>- to C<sub>20</sub>- carbon-containing

group; and

n is from 5 to 50,000;

which comprises the steps of

a) reacting at least one monomer of the formula (II)



in which

X is a leaving group, and

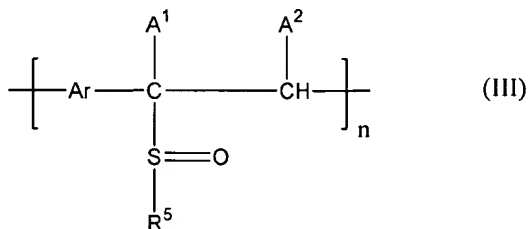
R<sup>5</sup> is unbranched alkyl having 1 to 20 carbon atoms, branched alkyl having 3 to 20 carbon atoms, cyclic alkyl or C<sub>1</sub>-C<sub>4</sub>-alkyl-substituted cyclic alkyl, which is optionally substituted or unsubstituted and/or contain heteroatoms, such as O, N and Si,

P represents para in respect of the two methylene radicals -CH(A<sup>1</sup>)- and -CH(A<sup>2</sup>)- on both sides of the radical Ar,

in which Ar, A<sup>1</sup> and A<sup>2</sup> are defined above,

with a base in the presence of an alcohol as a solvent, to give the compound of the

formula (III)

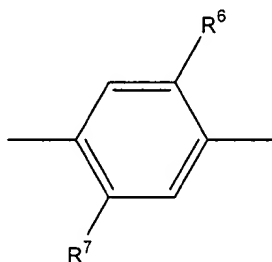


in which Ar, A<sup>1</sup>, A<sup>2</sup>, R<sup>5</sup> and n are as defined above,

b) warming of the compound of the formula (III) with formation of a polymeric compound of the formula (I),

which comprises employing a secondary or tertiary alcohol having at least 4 carbon atoms as the alcohol in step a).

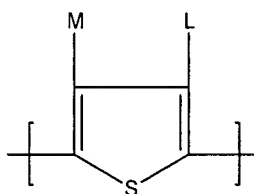
7. (previously presented) The process as claimed in claim 6, wherein Ar in the compounds of the formula (I) is the structural unit



wherein

R<sup>6</sup> and R<sup>7</sup> are identical or different and are hydrogen, an unbranched alkyl or alkoxy radical having 1 to 20 carbon atoms, a branched alkyl or alkoxy radical having 1 to 20 carbon atoms, phenyl or benzyl, wherein the above-mentioned radicals are unsubstituted or substituted, halogen, cyano, nitro, or an ester having 1 to 20 carbon atoms.

8. (previously presented) The process as claimed in claim 6, wherein Ar in the compounds of the formula (I) is the structural unit



in which

M and L are identical or different and are hydrogen, an unbranched alkyl or alkoxy radical having 1 to 16 carbon atoms, a branched alkyl or alkoxy radical having 3 to 16 carbon atoms, phenyl or benzyl, where the above-mentioned radicals are unsubstituted or substituted, halogen, cyano, nitro, or an ester having 1 to 16 carbon atoms, or M and L together are a bridge having at least 4 bridge members, which optionally contain one or more heteroatoms.

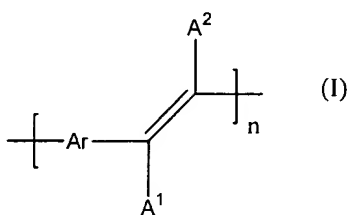
9. (previously presented) The process as claimed in claim 6, wherein a secondary and/or tertiary alcohol is employed whose boiling point at atmospheric pressure is  $<300^{\circ}\text{C}$ .
10. (previously presented) The process as claimed in claim 9, wherein the alcohol is s-butanol, 2-pentanol, 3-pentanol, 3-methyl-2-butanol, 2-methyl-2-butanol, 2,3-butanediol, 2-octanol, 3-octanol, 2-methyl-2-hexanol, 2-methyl-3-hexanol, 5-methyl-2-hexanol, cyclohexanol, regio- and stereoisomers of methylcyclohexanol, 1-methylcyclohexanol, t-butanol or 2-phenyl-2-propanol or a mixture thereof.

11. (previously presented) The process as claimed in claim 7, wherein  
R<sup>6</sup> and R<sup>7</sup> are identical or different and are hydrogen, an unbranched alkyl or alkoxy radical having 1 to 20 carbon atoms, a branched alkyl or alkoxy radical having 1 to 20 carbon atoms, phenyl or benzyl, wherein the above-mentioned radicals are unsubstituted or substituted, chlorine, bromine, fluorine, cyano, nitro, or an ester having 1 to 20 carbon atoms.
12. (previously presented) The process as claimed in claim 8, wherein  
M and L are identical or different and are hydrogen, an unbranched alkyl or alkoxy radical having 1 to 16 carbon atoms, a branched alkyl or alkoxy radical having 3 to 16 carbon atoms, phenyl or benzyl, where the above-mentioned radicals are unsubstituted or substituted, chlorine, bromine, fluorine, cyano, nitro, or an ester having 1 to 16 carbon atoms, or M and L together are a bridge having at least 4 bridge members, which optionally contain oxygen, sulfur or oxygen and sulfur.
13. (previously presented) The process as claimed in claim 7, wherein a secondary and/or tertiary alcohol is employed whose boiling point at atmospheric pressure is <300 °C.
14. (previously presented) The process as claimed in claim 8, wherein a secondary and/or tertiary alcohol is employed whose boiling point at atmospheric pressure is <300 °C.
15. (previously presented) The process as claimed in claim 7, wherein the alcohol is s-butanol, 2-pentanol, 3-pentanol, 3-methyl-2-butanol, 2-methyl-2-butanol, 2,3-butanediol, 2-octanol, 3-octanol, 2-methyl-2-hexanol, 2-methyl-3-hexanol, 5-methyl-2-hexanol,

cyclohexanol, regio- and stereoisomers of methylcyclohexanol, 1-methylcyclohexanol, t-butanol or 2-phenyl-2-propanol or a mixture thereof.

16. (previously presented) The process as claimed in claim 8, wherein the alcohol is s-butanol, 2-pentanol, 3-pentanol, 3-methyl-2-butanol, 2-methyl-2-butanol, 2,3-butanediol, 2-octanol, 3-octanol, 2-methyl-2-hexanol, 2-methyl-3-hexanol, 5-methyl-2-hexanol, cyclohexanol, regio- and stereoisomers of methylcyclohexanol, 1-methylcyclohexanol, t-butanol or 2-phenyl-2-propanol or a mixture thereof.
17. (previously presented) A process as claimed in claim 6, wherein  $R^6$  and  $R^7$  independently of one another are an unbranched alkoxy radical having 1 to 10 carbon atoms, a branched alkoxy radical having 3 to 20 carbon atoms, or phenyl, which is optionally substituted by one or more branched or unbranched alkyl or alkoxy groups having up to 20 carbon atoms.
18. (previously presented) The process as claimed in claim 6, wherein  $R^5$  is n-butyl, i-butyl, s-butyl, t-butyl, i-pentyl, octyl, 3,6,9-trioxadecyl, 2-hydroxyethyl or 2-chloroethyl.
19. (previously presented) The process as claimed in claim 9, wherein  $R^5$  is n-butyl or n-octyl.
20. (previously presented) The process as claimed in claim 10, wherein the alcohol is t-butanol.
21. (previously presented) The process as claimed in claim 5, wherein step b is carried out in the presence of a solvent.

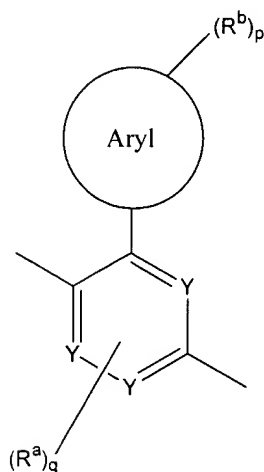
22. (previously presented) The process as claimed in claim 21, wherein said solvent is toluene.
23. (new) The process as claimed in claim 6, wherein the 0.85 to 1.6 equivalents of base per mole of monomer of the formula (II).
24. (new) The process as claimed in claim 6, wherein the 0.95 to 1.05 equivalents of base per mole of monomer of the formula (II).
25. (new) A process for the preparation of polymers of the formula (I)



in which Ar is Ar<sup>1</sup> or Ar<sup>2</sup> and

Ar<sup>1</sup> is an aromatic ring system having 4 to 20 carbon atoms, which is optionally monosubstituted or polysubstituted by C<sub>1</sub>-C<sub>20</sub>-alkyl, C<sub>1</sub>-C<sub>20</sub>-alkoxy, C<sub>3</sub>-C<sub>20</sub>-branched alkyl, phenyl or benzyl radicals and which further optionally contains up to 4 heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen in the aromatic ring system, is a radical of the formula





in which

Y are identical or different and are CH or N;

Aryl is an aryl group having 4 to 14 carbon atoms;

$R^a$  and  $R^b$  are identical or different and are a straight-chain or branched or cyclic alkyl or alkoxy group having 1 to 20 carbon atoms, in which one or more non-adjacent  $CH_2$  groups is optionally replaced by -O-, -S-, -CO-, -COO-, -O-CO-, -NR<sup>1</sup>-, -(NR<sup>2</sup>R<sup>3</sup>)<sup>+</sup>-A<sup>-</sup> or -CONR<sup>4</sup>- and in which one or more H atoms is optionally replaced by F, or are CN, F, Cl or an aryl group having 4 to 14 carbon atoms, which is optionally substituted by one or more non-aromatic radicals  $R^a$ ;

$R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are identical or different and are aliphatic or aromatic hydrocarbon radicals having 1 to 20 carbon atoms or are alternatively H;

A<sup>-</sup> is a singly charged anion or an equivalent thereof;

q is 0, 1 or 2;

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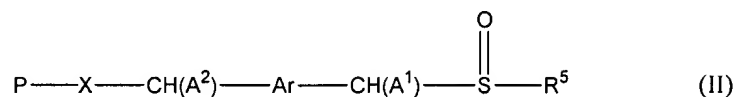
A<sup>1</sup> and A<sup>2</sup> are identical or different and are hydrogen or a C<sub>1</sub>- to C<sub>20</sub>- carbon-containing

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n is from 5 to 50,000;

which comprises the steps of

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in which

X is a leaving group, and

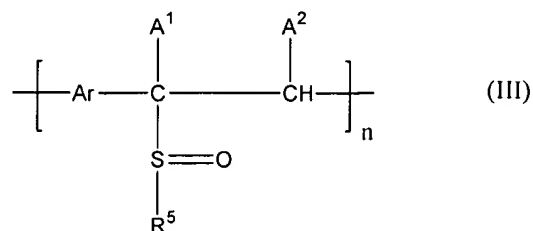
R<sup>5</sup> is unbranched alkyl having 1 to 20 carbon atoms, branched alkyl having 3 to 20 carbon atoms, cyclic alkyl or C<sub>1</sub>-C<sub>4</sub>-alkyl-substituted cyclic alkyl, which is optionally substituted or unsubstituted and/or contain heteroatoms, such as O, N and Si,

P represents para in respect of the two methylene radicals -CH(A<sup>1</sup>)- and -CH(A<sup>2</sup>)- on both sides of the radical Ar,

in which Ar, A<sup>1</sup> and A<sup>2</sup> are defined above,

with a base in the presence of an alcohol as a solvent, to give the compound of the

formula (III)



in which Ar, A<sup>1</sup>, A<sup>2</sup>, R<sup>5</sup> and n are as defined above,

b) warming of the compound of the formula (III) with formation of a polymeric compound of the formula (I),

which comprises employing a secondary or tertiary alcohol having at least 4 carbon atoms as the alcohol in step a) and said base and said alcohol are different components in step a).